Pyramix

DIGITAL AUDIO WORKSTATION

Installation Guide

MERGING

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Installation Guide

IMPORTANT NOTICE:

Please read the following information very carefully before attempting any installation. Failure to comply with the precise instructions may result in damage to your Merging hardware. Please read this entire section of the manual carefully before installation.

STATIC DANGER NOTICE:

Please note that the Mykerinos and Mykerinos-X boards contain delicate electronic components that can be damaged or even destroyed when exposed to static electricity. Take all necessary precautions not to discharge static electricity when touching any of the Mykerinos components.

INFORMATION FOR THE USER:

Mykerinos, Mykerinos-X and their daughter cards comply with the following specifications:

EMC Emissions

EN 55022 : 1994 /A1 : 1995 /A2 : 1997 Class A ITE emissions requirements (EU)

FCC 47 CFR Part 15 Class A emissions requirements (USA)

EMC Immunity

EN 50082-1: 1992 EMC residential, commercial and light industrial generic immunity standard.

FCC Notice

This product has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

These limits are designed for providing reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions contained in this manual, may cause harmful interference to radio and television communications. However,

there is no guarantee that interference will not occur in a particular installation.

> **Note:** Connecting this device to peripheral devices that do not comply with CLASS A requirements or using an unshielded peripheral data cable could also result in harmful interference to radio or television reception. The user is cautioned that any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. To ensure that the use of this product does not contribute to interference, it is necessary to use shielded I/O cables.

CE Notice

Such a CE marking is indicative that this system's devices meet the following applicable technical standards:

- EN 55022 – "Information Technology Equipment - Radio disturbance characteristics Limits and methods of measurement"
- EN 50082-1: 1992 – "Electromagnetic compatibility – Generic immunity standard Part 1:Residential, commercial, and light industry"

This product is classified for use in a typical Class A commercial environment, and is not designed or intended for use in other EMC environments. The user of this product is obliged for proper use and installation of the product and for taking all steps necessary to remove sources of interference to telecommunications or other devices.

Hardware Warranty Information

This product is warranted to be free of defects in materials and workmanship for a period of one year from the date of purchase. Merging Technologies, Inc. extends this Limited Warranty to the original purchaser.

In the event of a defect or failure to confirm to this Limited warranty, Merging Technologies, Inc. will repair or replace the product without charge within sixty (60) days. In order to make a claim under this limited warranty, the purchaser must notify Merging Technologies, Inc. or their representative in writing, of the product failure. In this limited warranty the customer must upon Merging Technologies, Inc. request, return the product to the place of purchase, or other local designation, for the necessary repairs to be performed. If the consumer is not satisfied with the repair, Merging Technologies, Inc. will have the option to either attempt a further repair, or refund the purchase price.

This warranty does not cover: (1) Products which have been subject to misuse, abuse, accident, physical damage, neglect, exposure to fire, water or excessive changes in the climate or temperature, or operation outside maximum rating. (2) Products on which warranty stickers or product serial numbers have been removed altered or rendered illegible. (3) The cost of installations, removal or reinstallation. (4) Damages caused to any other products.

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Installation Guide

Document: Pyramix™ Installation Guide rev25

Date: 8th May 2013

1 Introduction

Thank you!

Congratulations on your purchase of **Pyramix Virtual Studio**. More than just a product, this is a gateway to the future of sound recording, editing, mixing and mastering. You have joined a worldwide community of users who have already discovered the Pyramix advantage.

> **Note:** IMPORTANT! - The first thing you need to do is register your software to acquire your Pyramix key(s) and to be included in our user support list.

http://www.merging.com/register/

Please also subscribe to the User Forum at:

http://www.merging.com/forum/

Scope

Pyramix Virtual Studio is a powerful and flexible Digital Audio Workstation (DAW) integrating hard disk recording and editing, digital audio mixing, effects processing, metering, machine control, video and mastering. Complete turnkey systems are available.

This document is intended to get you up and running with Pyramix, Pyramix MassCore and Pyramix MassCore Ravenna as quickly as possible. For more detailed information about the Horus, Mykerinos and Mykerinos X hardware and the Pyramix software please see their specific Guides.

> **Important!** If you are installing an upgrade to Pyramix please read: **For Users Performing Upgrades on page 10** first.

If you have purchased Pyramix Virtual Studio as an integrated (Turnkey) system, the installation information in this guide will be redundant, since these systems come with all hardware and software pre-installed. If you are configuring your own system, please refer to the following instructions.

2 Pyramix Versions - Compatibility and Installation Steps

Native (ASIO on 3rd party hardware):

Compatibility: Windows 7 32 bit and 64 bit, Windows XP SP3

Installation Steps:

- Pyramix Software Installation, See: *Pyramix Software Installation on page 18*
- Entering Authorization Keys, See: *Pyramix Software Registration on page 20*
- Select ASIO and the correct card/device in the VS3 Control Panel (*Start Menu > Control Panel > VS3 Control Panel*)

Native with ASIO for Ravenna and Horus:

Compatibility: Windows 7 32 bit and 64bit

Installation Steps:

- Install the Merging Ravenna ASIO Driver provided with your Horus or available from:
- Select ASIO and the correct card/device in the VS3 Control Panel (*Start Menu > Control Panel > VS3 Control Panel*)

http://www.merging.com/download

- Optional: Pyramix Software Installation *See: Pyramix Software Installation on page 17*
- If Pyramix Software is installed: Entering Authorization Keys *See: Pyramix Software Registration on page 19*
- Select the desired network adapter in Merging Ravenna ASIO Panel (*Start Menu > All Programs > Merging Technologies > Merging Ravenna ASIO Driver > Merging Ravenna ASIO Panel*) please see details in the Merging Ravenna ASIO and CoreAudio Guide available in *Start Menu > All Programs > Merging Technologies > Documentation > Merging Ravenna ASIO Driver > Merging Ravenna ASIO Panel*
- Select ASIO/Ravenna in the VS3 Control Panel (*Start Menu > Control Panel > VS3 Control Panel*)

Mykerinos only:

Not supported on version 8, upgrade to MassCore mandatory.

MassCore with Mykerinos:

Compatibility: Windows 7 32 bit, Windows XP SP3

Installation Steps:

- Mykerinos Installation, *See: Mykerinos Installation on page 16*
- Pyramix Software Installation, *See: Pyramix Software Installation on page 17*
- Entering Authorization Keys, *See: Pyramix Software Registration on page 19*
- MassCore Installation, *See: MassCore Installation on page 21*
- Select MassCore with Mykerinos in the VS3 Control Panel (*Start Menu > Control Panel > VS3 Control Panel*)

MassCore with Ravenna and Horus:

Compatibility: Windows 7 32 bit

Installation Steps:

- NET-MSC-GBEX1 Installation *See: Installing the Merging Technologies NET-MSC-GBEX1 PCIe Ethernet Controller Card on page 23*
- Pyramix Software Installation, *See: Pyramix Software Installation on page 17*
- Entering Authorization Keys, *See: Pyramix Software Registration on page 19*
- MassCore Installation, *See: MassCore Installation on page 21*
- Select MassCore with Ravenna in the VS3 Control Panel (*Start Menu > Control Panel > VS3 Control Panel*)

Quick Setup Checklist For Systems with Horus

1. MassCore users MUST uninstall the previous MassCore version from the Windows Control Panel (Interval Zero RTX runtime).
2. MassCore users MUST configure their BIOs settings. *Please see: BIOS Settings on page 15*
3. Disable Windows Firewall in Windows Control Panel Security
4. Increase Scheduling Priority. *Please see: MassCore and Networks on page 12*
5. Install Google Chrome
6. Install Pyramix v8.x or Ovation v4.x.
7. Enter your new v8/v4 keys in MT Security Settings
8. Also in MT Security Settings install MassCore from the MassCore Tab.
9. MassCore SMP users (recommended for i7 CPU configurations and above) should launch the VS3 Control Panel and assign 2 cores to MassCore. (A reboot will be required.)
10. Shut down the system and install the MassCore NET-MSC-GBEX1 PCIe Ethernet controller card. (Card drivers are included in the Pyramix and Ovation installers.)
11. In the VS3 Control Panel ensure that Ravenna is selected in the Hardware section.
12. Configure the Switch/Router Please refer to the Ravenna Network Guide
13. Launch Pyramix
14. You can also launch the MTDiscovery application and open the Horus entry for remote access.
15. Ensure that the Horus is set to the same sampling rate as Pyramix or Ovation. A warning prompt will appear if this is not the case.
16. 16. Configure I/O as required in Pyramix/Ovation and Horus. Ravenna users should consult the Ravenna Easy Connect Guide

3 For Users Performing Upgrades

Note: New V8 Keys have been issued for Pyramix V8 users. Be aware that 7.1 keys will only work with the Beta and Release Candidate versions of Pyramix 8.

Pyramix

We recommend uninstalling any previous version of Pyramix before installing Pyramix 8.

From the Windows Control Panel select **Programs and features** (Windows 7 or Vista) **Add or remove programs** (Windows XP).

Remove the installed version of Pyramix.

VCube

Pyramix 8 can coexist with VCube Version 4. (Be aware of recommended configurations.)

Masscore

MassCore users **MUST** remove the existing MassCore runtime. Once you have installed Pyramix V8.1 follow these steps:

1. Ensure that you are logged on to your system with the User Account which was used to install MassCore in the first place. (This information can be retrieved with our MassCore Troubleshooting Guide - see below.)
2. Launch **MT Security Settings** and select the **MassCore** tab.
3. Click on the **Uninstall MassCore Runtime** button.
4. When the uninstall completes reboot the system.
5. After the system reboot return to **MT Security Settings** and select the **MassCore** tab.
6. Click on the **Install MassCore** to install the new version of MassCore.
7. Reboot the machine.

Note: A second automatic reboot will occur after the first login.

Note: After the installation you should see two **Interval Zero** entries in **Windows Control Panel > Programs and Features** which are:

1. **Interval Zero RTX 2011 with Service Pack 1 Runtime Professional**
2. **Interval Zero RTX 2011 with Service Pack 1 Update 5 Installed**

If these entries are not present please refer to the document here:

http://download.merging.com/beta/supporttools/Docs/IntervalZeroRTX_manualremoving.pdf

For further troubleshooting advice please refer to this document:

http://download.merging.com/beta/Pyramix/pmx8.1_Beta2/IntervalZeroRTX_Uninstall_Troubleshoot.pdf

Note: Windows XP users must upgrade to **SP3**.

4 System Requirements

Wintel platforms tend to increase in number of cores, speed and performance at a tremendous rate. New and faster processors are released almost on a monthly basis. Therefore we have not included suggested Motherboard or Processor specifications here.

We maintain a list of up to date PC configurations in the Support Section of our website at:

http://www.merging.com/pages/pcconfig

Other Components

- **Graphics Card**: The recommended graphics cards are the **ATI FIREPRO** series of PCIe graphics cards. Merging recommends Intel integrated graphics. (Where supported by the motherboard.)
- Sufficient HD space and speed for your audio media files. The speed and amount of disk space required depends on sample rate, wordlength, number of tracks and length of program material.
- A typical 7200 RPM SATA drive is sufficient for 48 tracks at 48 kHz. Higher track-counts and/or higher sampling rates will require multiple drives configured in Raid 0, 1, 10 or 5
- We recommend disks should be formatted as **NTFS** volumes with 64kB block sectors.
- **DVD/CD-ROM** combo drive or better (since Pyramix software is delivered on a DVD)
- SXGA 17" monitor or better. Multiple 19" monitors highly recommended.
  Minimum resolution 1280x1024
- 3 button mouse

Mykerinos Systems

Certified Operating Systems

- **OS**: We recommend and certify **Pyramix Version 8.0 and later** under **Windows 7 Professional (32-bit version)** and **Windows XP SP3 Professional (32-bit version)**.

Note: *Although not certified, Pyramix has also been observed to work under the Home editions of Windows 7 (32-bit) XP SP3 (32-bit) and Vista for business with Service Pack 2 (32-bit) without any known edition related issues to date.*

Note: NEVER attempt to install Pyramix on Windows **NT Server**)

Pyramix MassCore Systems

Certified Operating Systems

- **OS**: We recommend and certify **Pyramix Version 8.0 and later** under **Windows 7 Professional**, and **Windows XP SP3 Professional**.

Note: MassCore - Ravenna is ONLY certified under Windows 7 Professional (32-bit version)

Note: *Although not certified, Pyramix with MassCore™ has also been observed to work under the Home editions of Windows 7 and XP SP3 without any known edition related issues to date.*

Pyramix Native

Certified Operating Systems

- **OS**: We recommend and certify **Pyramix Version 8.x** under **Windows 7 Professional**, and **Windows XP SP3 Professional**.
- Pyramix Native **ONLY** (versions from 7.1 onwards) is certified to work under Windows 7 - 64bit. **N.B.** Pyramix Native is **NOT** certified for Windows XP64 or Vista64 versions.

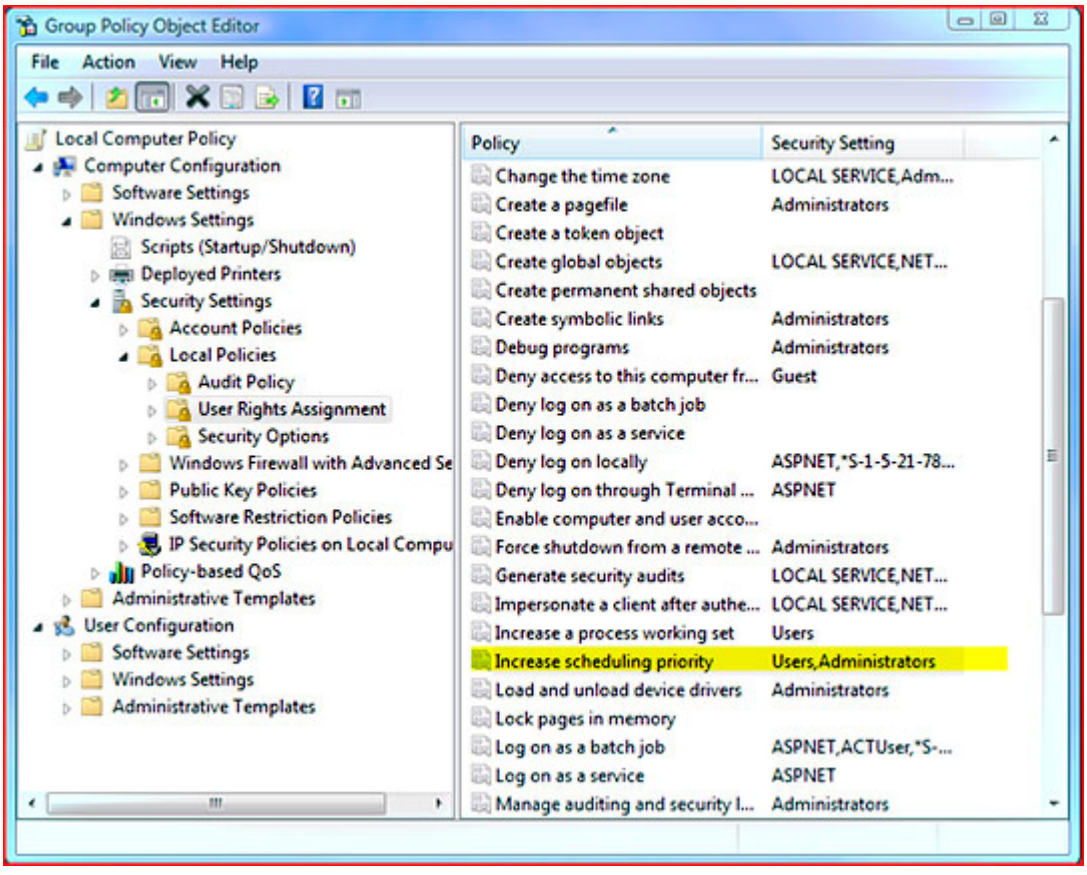
MassCore and Networks

Increase Scheduling Priority

For satisfactory operation over a network, you must add the User Group to which the User belongs to "Increase Scheduling priority policy" with the help of **gpedit.msc**. If the Machine belongs to a domain the **Administrator** of the domain must do this, if not then the Administrator of the system.

Procedure

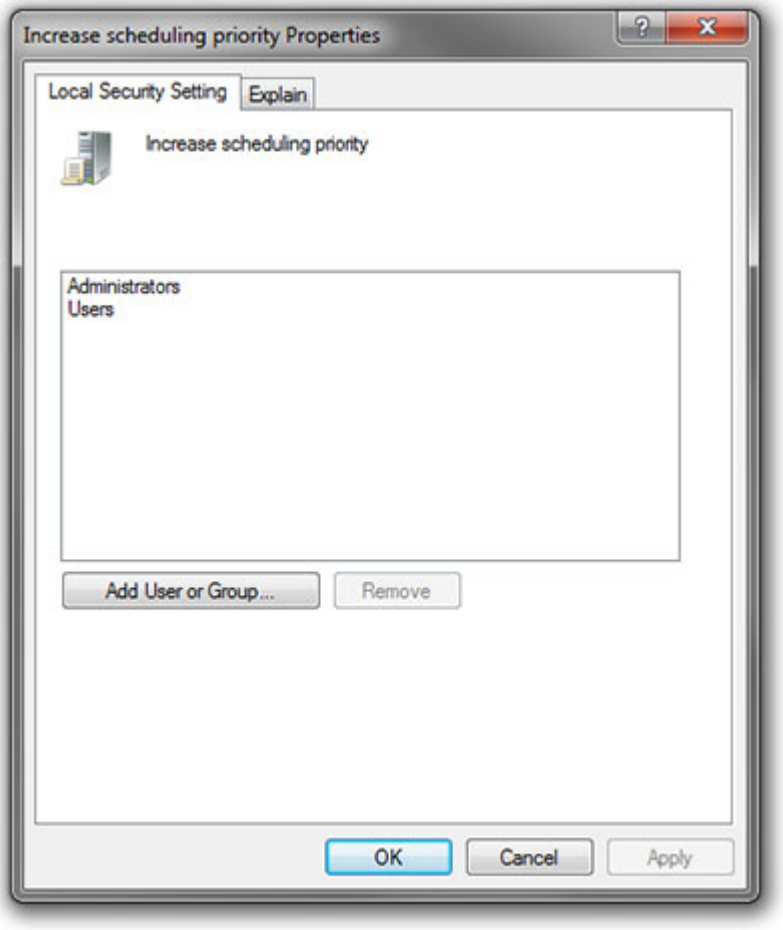
1. Open the **Local Group Policy Editor**.
   Start > Accessories > Run and type or paste **gpedit.msc**).



MassCore Windows GPO Editor Window

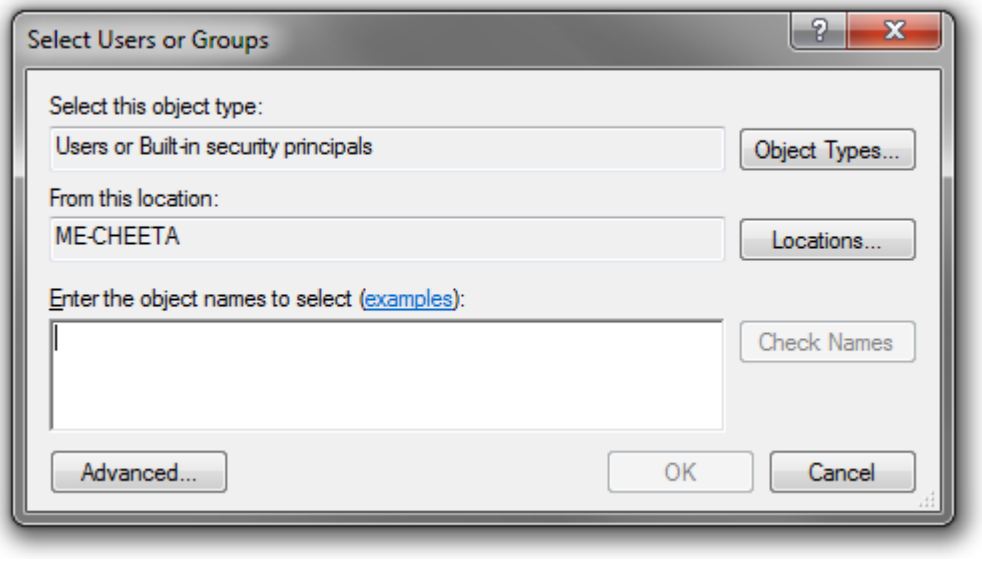
2. Navigate to: **Computer Configuration > Windows Settings > Security Settings > Local Policies > User Rights Assignment**

3. Double-click on **Increase scheduling priority** to open the **Increase scheduling priority Properties** dialog:

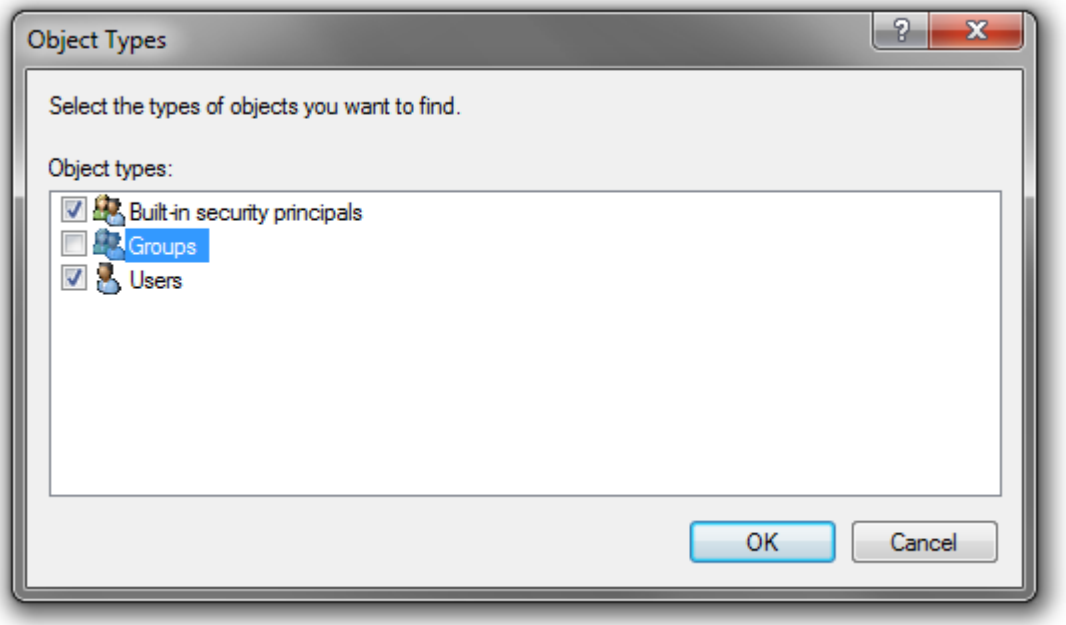


Increase scheduling priority Properties dialog

4. Click on the **Add User or Group** button to open the **Select Users or Groups** dialog:



5. Click on the **Object Types** button to open the **Object Types** dialog:



Object Types dialog

6. Ensure that **Groups** is ticked and click on **OK** to close the dialog.
7. In the **Select Users or Groups** dialog type the name of the User Group the user or users belong to (e.g. **Users**) in the **Enter the object names to select** field and click on the **OK** button to close the dialog.
8. The Group name you typed in step **5.)** should now appear in the **increase scheduling priority Properties** dialog list.
9. Click on the **OK** button to close the dialog.

Note: that the **Groups** selection in the **Object Types** dialog is temporary and must be selected every time you wish to add or remove a Group.

5 PC Setup

Motherboard Drivers and Utilities

Motherboard drivers should be updated to current versions.

Motherboard Utilities should NOT be installed.

BIOS Settings

Recommended BIOS Settings

The following features can create MassCore overloads (blinking red **MSC**).

Intel® Hyperthreading Technology (or Intel® HT Technology) is not supported by MassCore, this setting must be disabled for the relevant CPUs. This setting is commonly found in Main Bios page, or under CPU configuration. (see the motherboard manual for further details).

Intel® Speedstep Technology (also known as Enhanced Intel® SpeedStep), as well as CPU C State (or Intel® C-State) features must be disabled in the BIOS.

Some Recent Intel boards have a global setting to disable those features known as Intel® Dynamic Power Technology. If present this should be turned off. These settings are commonly found in BIOS Power options or CPU Configuration.

Overclocking is not supported.

Display Settings

Pyramix requires a minimum display resolution of 1280x1024 in 256 colors which **MUST** be set to ***small fonts*** mode. In Windows 7 and Vista environments we strongly recommend turning **OFF** the Aero feature for maximum performance.

Power Management

N.B. As with other Digital Audio Workstations and Non-Linear Editors, we recommend setting the PC to an **Always On** Power management scheme. (In Windows XP: **Start > Settings > Control Panel** double-click **Power Options**. Choose **Always On** from the **Power Schemes** drop down list.) This allows the monitor to be turned off by the system but disables hard-disk spin down and Standby.

The Mykerinos and Mykerinos-X cards are **not** designed to support Standby modes.

Aero graphics

Windows 7 users should disable AERO themes for maximum performance.

Indexing

In the interests of better performance we recommend turning Indexing OFF for all Data drives in the system.

Other Applications

Like all Digital Audio Workstations, Pyramix works best when there are no other unnecessary applications or services running.

Video and Pyramix on one PC

To ensure a very smooth system, (especially for seeking) when playing video with Pyramix on the same computer, we recommend a quad core Processor PC with one or two CPUs, a dedicated hard drive for the video and Windows 7 Professional or XP Pro with SP3.

Recommended options

Internet Connection (this will allow you to upgrade the software easily by connecting to our Web site, and to communicate queries or suggestions to Merging by Email).

PCI MIDI Interface card (where none is fitted to the motherboard) or Sound Card with Midi interface or USB MIDI driver (where appropriate) for customers wishing to use Pyramix MIDI functions, for example to interface Pyramix with an external Midi remote controller such as:

- J.L. Cooper MCS-series
- Raditek SAC-2k
- Mackie Control

or external digital mixer such as:

- Sony DMX-R100
- Yamaha DM-2000
- Yamaha DM-1000
- Yamaha 02R-96

6 Mykerinos Installation

IMPORTANT NOTICE:

Please read the following information very carefully before attempting any installation. Failure to comply with the precise instructions may result in damage to your Merging hardware. Please read the entire chapter carefully before installation.

STATIC DANGER NOTICE:

Please note that the Mykerinos Audio Board contains delicate electronic components that can be damaged or even destroyed when exposed to static electricity. Please take all of the necessary precautions when handling the Mykerinos board and all other PC computer cards.

Mykerinos Card Installation

Note: Note: for multiboard installation care must be taken in the selection of the PC chassis components to ensure adequate thermal dissipation through sufficient fan air cooling.

Inserting the Mykerinos Audio Board(s)

- Make sure the computer is turned off (and unplugged) before installing the Mykerinos board.
- To avoid the possibility of static electricity damage to the PC or the Mykerinos board(s) please use an anti-static strap to connect yourself to a known good earth.
- Remove the computer covers required to gain access to the peripheral slots.
- Locate a free PCI (Mykerinos) or PCI-e (Mykerinos-X) slot. It is generally inadvisable to use the slot adjacent to an AGP slot. Remove a slot / bracket for the chosen slot(s) (if needed)
- Insert the Mykerinos board(s) into the chosen slot(s)
- Ensure each Mykerinos is properly seated in the slot
- Fit any extra break-out connector brackets (if applicable)
- Fasten the mounting screw to secure the Mykerinos back-plate to the PC frame

Multi-board Installation

- For multiboard installation it is advisable to insert all Mykerinos boards in adjacent slots sharing the same PCI bus segment. Please refer to PC motherboard documentation.
- In order to enable multi-board operation, all Mykerinos cards in the PC must to be connected together using a special HDTDM ribbon cable with 30 pin plugs. This cable has to be plugged into the multi-pin connectors located on the top edge of the I/O daughter cards. Please contact your Merging Technologies Sales Partner for information on how to order the HDTDM ribbon cable.

Note: to reduce the risk of electro-magnetic interference being induced by other PCI cards into the highly sensitive Mic Preamp circuitry, systems equipped with Merging's **DUAL** (Analog + AES) daughtercard are best installed in a slot with no other card inserted in the immediately adjacent slot. (I.e. the component side of the card, which will be on the left looking from the front of a conventional PC chassis.)

7 Pyramix Software Installation

Note: You must have full Administrator Access to install Pyramix.

Installation Overview:

Note: Note: If you have purchased hardware options such as Mykerinos cards, the NET-MSC-GBEX1 PCIe Ethernet card, the Sync Board and or an AJA video card, please install these first following the instructions in the accompanying documentation.

Installer

The Pyramix software uses an automated installer wizard which will install all necessary prerequisites. We use a unified installer package containing the current versions of Pyramix, VCube and Ovation. The initial installer screen offers the choice of Pyramix, VCube and Ovation. Choosing Ovation will also install Pyramix.

You may exclude the installation of any of the individual components in the wizard, if the device in question is not present on your machine or if you do not intend to use an item, by un-ticking the tick boxes next to the items listed in the wizard.

Note: The security dongle must be in place and the security keys entered before attempting to launch VCube

Driver Signing

Important! Before attempting to install the Pyramix Virtual Studio software on a Windows XP system please check the following setting:

Start > Settings > Control Panel > System : Hardware

Click on the **Hardware** Tab, then click on **Driver Signing**. The **Driver Signing Options** dialog opens:

Driver Signing Options
During hardware installation, Windows might detect software that has not passed Windows Logo testing to verify its compatibility with Windows. (Tell me why this testing is important.)
What action do you want Windows to take?
Ignore - Install the software anyway and don't ask for my approval
Warn - Prompt me each time to choose an action
Block - Never install unsigned driver software
Administrator option
Make this action the system default
OK
Cancel

Windows Driver Signing Options dialog

Make sure the middle option **Warn** is selected.

Note: This dialog is not available in Windows 7 or Windows Vista. Vista is preset to **Warn**.

Running the Installer

> **Note:** If you have a **SafeNet** dongle please remove this before installing Pyramix and replace it after installation is complete.

Once the NET-MSC-GBEX1 Ethernet card and or Mykerinos card(s) have been properly installed, you can now install the Pyramix 8.x software.

To install the Pyramix Virtual Studio V8.x software insert the USB memory stick. The installation program will auto-start on a PC where auto-start is configured **on**. Otherwise, double click on the USB memory stick icon.

Please follow the automatic installation procedure accepting the option to install unsigned drivers (one per Mykerinos board) and re-boot your PC once setup is complete.

> **Note:** If the installation appears to freeze for a long period please check that the **Driver Signing** warning dialogue is not hidden behind another Window. Installation will not continue until you click **OK** in this dialog.

WARNING: Certain computers do not properly shut down despite the reboot command issued by the installer but only perform a log off. In this case, please activate a full shut down manually.

8 Pyramix Software Registration

The **Pyramix Virtual Studio** software and its various software options are protected by an authorization key mechanism which uses a unique registration key number generated by Merging Technologies. Based on purchased software components, this key is unique to your security dongle or Mykerinos board serial number, your Company Name and your User name. Once you have registered your software you will be provided with this Key or Keys (depending on the chosen options).

In a multi-board system only one key is required for all connected boards. The master board validates the others.

If you did not receive this key, have lost it or would like to change the user and/or company name, please contact your Merging Sales Partner with your Mykerinos serial #, your User Name, your Company Name and the list of purchased software components. Usually, a key can be issued within one business day, after the verification of your personal data has been completed.

Entering your Key(s)

After the Pyramix installation process you will be prompted to enter your **Authorization Key**. If you click **Yes** the **MT Security Settings** dialog will be launched automatically, allowing the Key or Keys to be entered immediately. If you choose not to enter your Key at this point you can do so later by choosing one of the following procedures:

1. Double-click the file **YourPersonalKeyXXXXX.mtk**. This is attached to the email containing your Key(s).
2. Open the **MT Security Settings Control Panel**
   (Windows Task Bar **Start > Control Panel > MT Security Settings**),
   click the **Import Key** button and browse for your Key file called

   YourPersonalKeyXXXXX.mtk
3. Open the **MT Security Settings Control Panel** (as above), in the **Registration** section select the board number corresponding to the serial number for your Keys or HASP Key for a dongle, click the **Enter Key** button and type your **User Name**, **Company Name** and **Key** then click **OK.** Repeat this step for each Keys listed in the email.

Changing or re-entering a Key

Should you need to subsequently change or re-enter a **Key**, follow the appropriate option above.

The key system is "smart". Only one key or set of keys is required regardless of the number of boards in a system. Any card can hold this key set as the authorization is processed based on a "Logical OR" of all keys present on any and all Mykerinos boards. Of course this Logical OR will only process keys with identical User Name and Company Name to the one entered in the key enabling window.

Evaluation Mode

If started without a valid registration key, the software will recognize that no valid key is available and will start in "evaluation" mode, which only allows for basic operation of the software as follows:

- Limited to 2 channels of I/O on host soundcard
- No **Project > Save** function
- Tone is added to new recordings
- All optional extra cost features are deactivated

All editing functions, playback, file type conversions etc. are fully functional.

Keys

At any time you can check the serial number of your Security dongle or Mykerinos card(s) and check the software options enabled in your system in the **MTSecurity** application.

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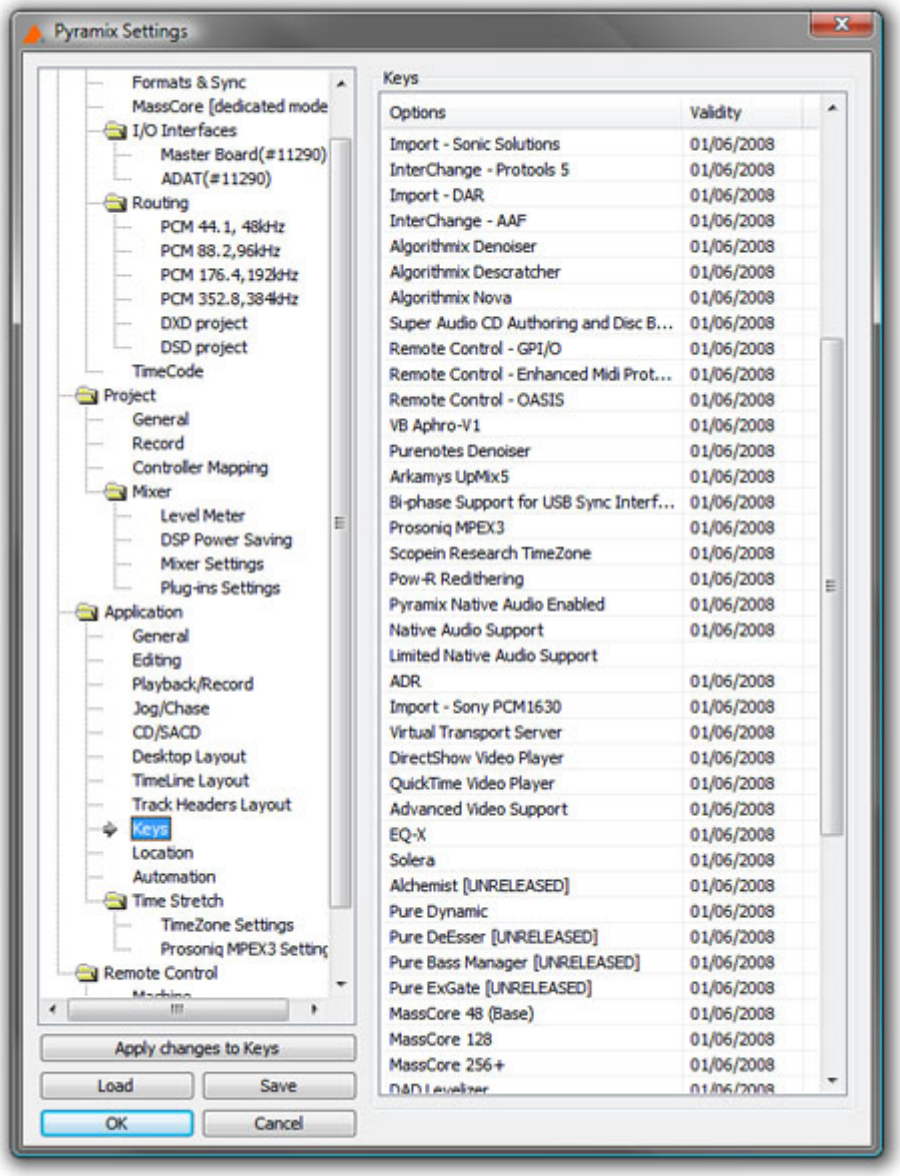


General Settings, Keys Tab pane

9 MassCore Installation

System Requirements

A quad core Intel processor is the minimum requirement.

Conditions

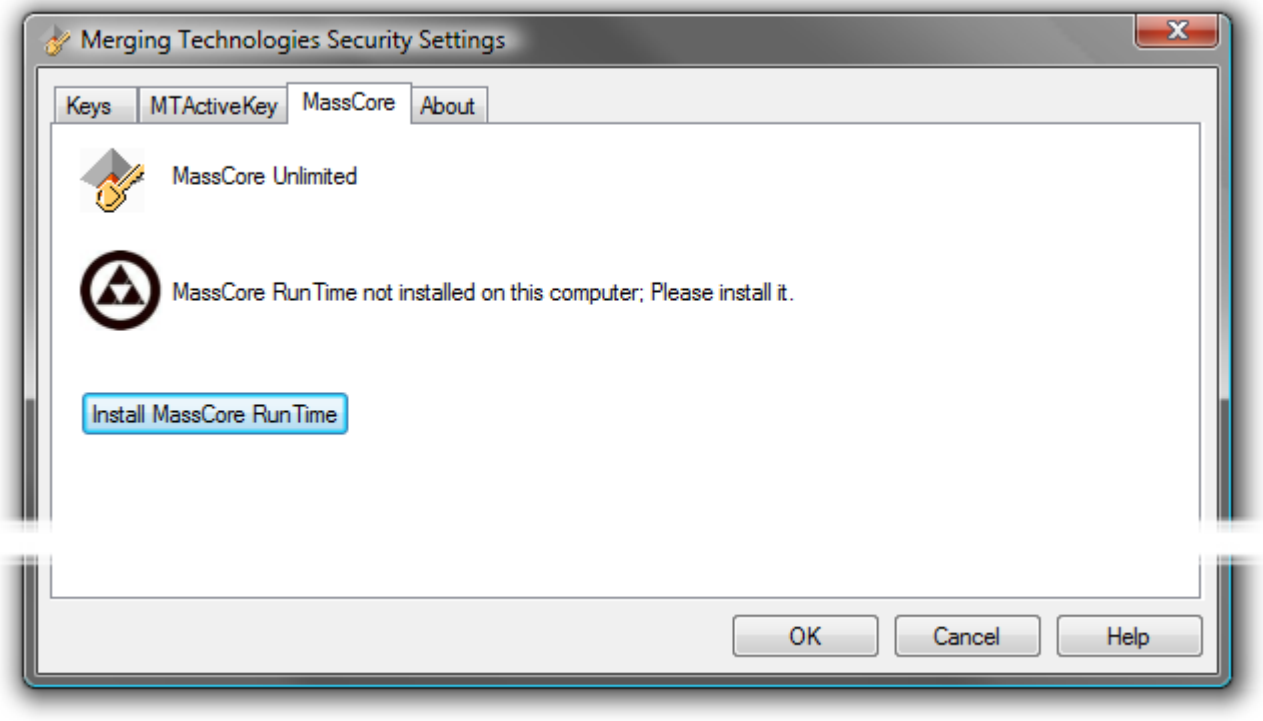
- You **MUST** be logged in as an **Administrator** to install **MassCore**

  Note: You do not need to be logged in as an Administrator to **RUN** Pyramix with MassCore™, just to install it.

- You must have at least one Mykerinos board or a NET-MSC-GBEX1-Ethernet card in your system.
- You must have a MassCore 48 (Base) Key in order to proceed with the installation. Please contact your Merging Technologies Sales Partner if you do not have this option but want to use MassCore.

MassCore Installation

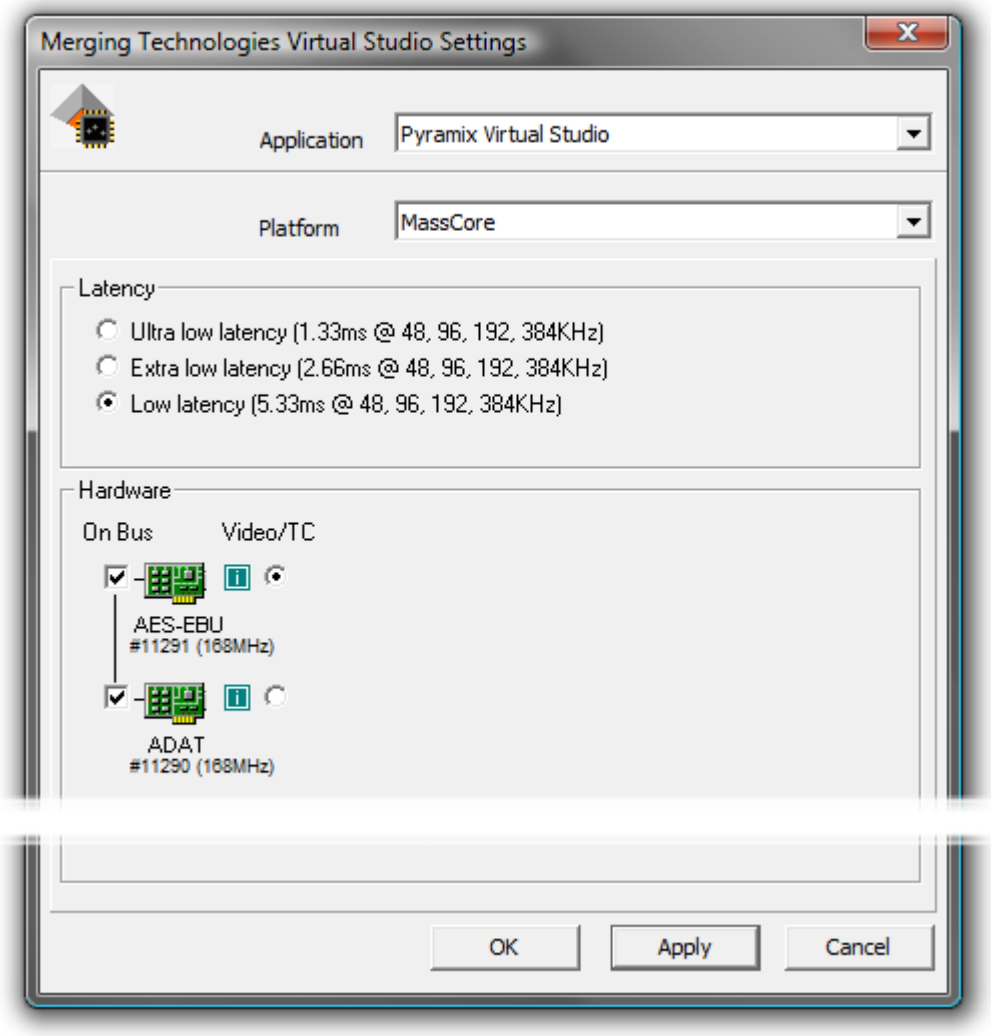
1. Install V8.x Pyramix.exe
2. Restart your system after the Pyramix install
3. Enter Your Key(s) in **MT Security Panel** (make sure you have a valid MassCore key)
4. In the **MT Security Panel** select the MassCore Tab
5. Press the **Install MassCore RunTime** button (will only be enabled if the MassCore Base Key is present)



VS3 merging Technologies Security Settings dialog

6. Restart System after install
7. Launch the **VS3 Control Panel**
8. In the Platform section select "MassCore"

9. We recommend by default the use of **Low latency** mode. (**Ultra low latency** & **Extra low latency** are available only for Mykerinos-X users in a certified, calibrated system.)



VS3 Merging Technologies Virtual Studios Settings dialog

10 MassCore - Ravenna

MassCore

RAVENNA

Certified Operating Systems (OS) for Ravenna

Pyramix Version 8.0 MassCore in Ravenna mode is certified under Windows 7 Professional (32-bit version) ONLY.

System Requirements

We maintain a list of up to date PC configurations in the Support Section of our website at:

http://www.merging.com/pages/pcconfig

Please refer to the MassCore-Ravenna recommendations (Quad-Core is the minimum requirement)

Required Hardware

The Merging Technologies NET-MSC-GBEX1 PCIe Ethernet controller card is required for MassCore - Ravenna.

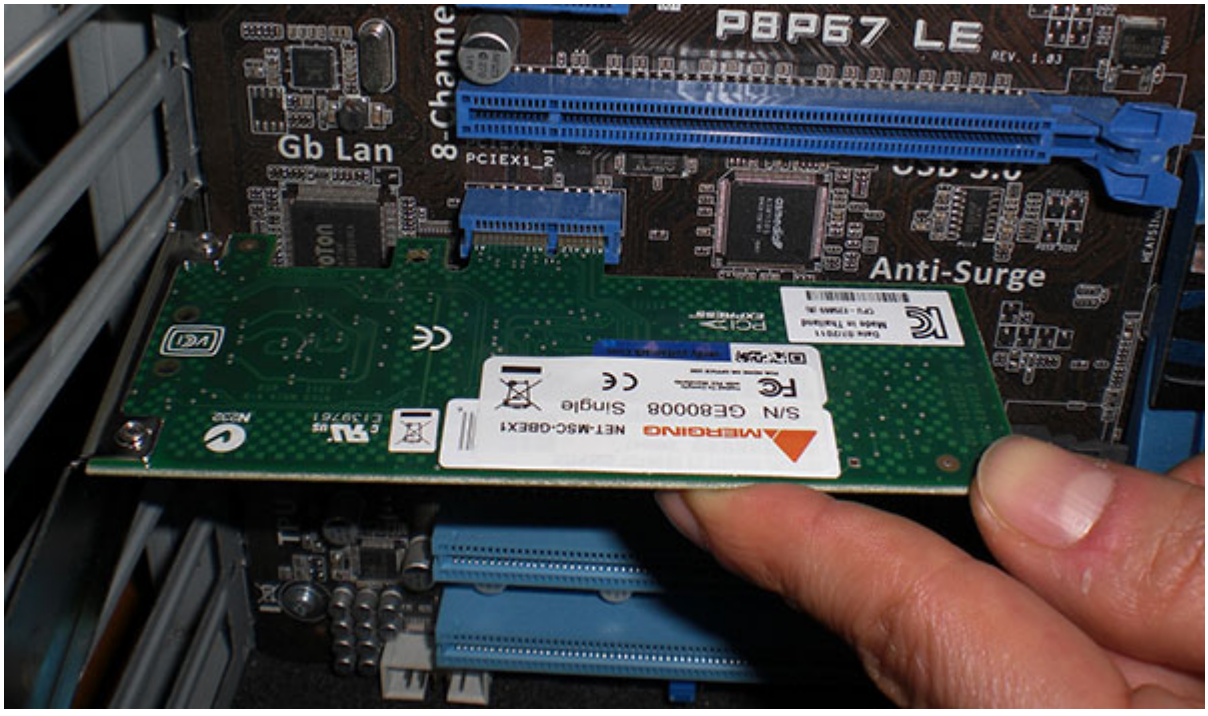
Installing the Merging Technologies NET-MSC-GBEX1 PCIe Ethernet Controller Card

The NET-MSC-GBEX1 PCIe card should be installed in your computer before installing Pyramix V8.

Procedure

1. Power down your PC and switch it off at the wall. Remove the screws securing the top or side of the case and carefully slide off the panel.
2. An anti-static wristband is sensible precaution whenever working with sensitive electrical equipment. Keeping one hand on a metal part of the case will have the same effect, though you may need both hands when installing certain items of hardware.
3. Locate an empty PCIe slot and remove the metal backing plate by removing the screw holding it in place and carefully sliding it up and out. In some cases, there are no backing plates and you will need to remove a length of metal instead. Do this using a flat-blade screwdriver and/or pliers, taking care to avoid any sharp edges left behind.

4. Remove the NET-MSC-GBEX1 card from its protective anti-static envelope and align it with the vacant PCIe slot as shown below.



5. Push down, gently at first, ensuring you have the pins aligned correctly with the slot, and then apply more pressure to slot the card fully home.
6. Use the screw which was used to retain the backing plate to secure the card in place and check that the card sits comfortably.
7. Finally, replace the case cover(s) and switch the machine back on at the socket.
8. At the next power up and boot Windows will discover the Merging Ethernet PCIe card.

Pyramix V8 can now be installed.

Required Software

In order to operate Pyramix with Ravenna and Horus, Pyramix V8 must be installed. The Pyramix v8 installer includes; the MT Discovery tool along with Apple bonjour.

> **Note:** Driver signing. Please tick **Always trust "Merging Technologies"** when the first warning message about unsigned drivers appears.

Enter your Pyramix keys

Launch MTSecurity settings and enter your Pyramix V8 keys. **Please see Entering your Key(s) on page 20**

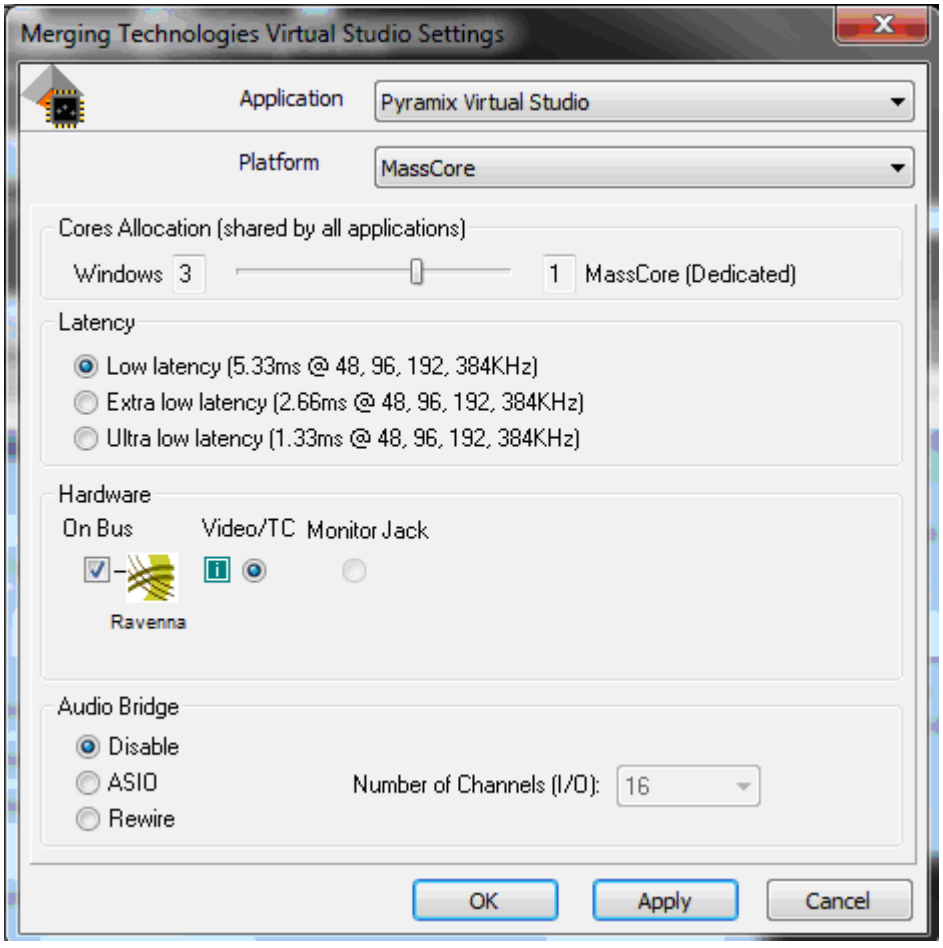
> **Note:** Pyramix V7.1 keys will only be valid with the Pyramix V8 beta versions.

Install MassCore

Please see: MassCore Installation on page 22

> **Note:** A valid MassCore (Base) key is mandatory.
>
> The MassCore key is held on the Safenet dongle. Please make sure that you are in possession of a dongle and valid keys in order to operate Pyramix in MassCore-Ravenna mode.
>
> **Note:** The NET-MSC-GBEX1 Ethernet card requires MassCore in order to function.

Configure Ravenna in the VS3 Control Panel



1. Launch the **VS3 Control Panel (Start: All Programs > Merging Technologies > VS3 Runtime > VS3 Control Panel**
2. **Cores Allocation** Leave on the default setting for now.
3. **Latency** Leave on the default setting **Low Latency** (only mode supported at present)
4. Select **Platform : MassCore**
5. Select **Hardware : On Bus** as **Ravenna** (box ticked)
6. **Audio Bridge** : Set as required.
7. Click on the **OK** button.
8. When the VS3 panel **Do you want to save routing?** dialog box appears, click on **OK**
9. the VS3 control panel will close.

Before First Launch

Before launching Pyramix V8, you must ensure that a **PTP Master*** is present on your Ravenna network. Merging Technologies recommends using its **Horus** converter as PTP Master.

* The Precision Time Protocol (PTP) is a protocol used to synchronize clocks throughout a computer network.

Note: As of V8.0 Ravenna mode only supports Low Latency mode. (VS3 Control Panel) To enable Ravenna I/O connections please refer to the separate Ravenna Easy Connect Guide.

Note: Horus users should refer to the Horus User Manual for configuration set-up with Pyramix.

Troubleshooting

Ravenna: Horus & Network configuration

Merging recommend that the Ethernet MassCore card and Horus are configured to obtain an IP address automatically.

Setting Horus and Network Card to Obtain IP Addresses Automatically

Network Card

1. Open **Network Connections** in the Windows **Control Panel**
2. Right-click on the MassCore Ethernet card NET-MSC-GBEX1 and open **Properties**.
3. Select **Internet Protocol Version 4**, **TPC/IPv4** (which is the only one activated) and click on **Properties**.
4. Select the **Obtain an IP address automatically** option.
5. Click on **OK** in each dialog to accept the changes and close the dialogs.

Horus

1. Open the **Horus Setup >Advanced > Network** page
2. In the **IP address** section select **Auto**

Setting Fixed IP addresses

1. First, check the IP address of the Horus device under **Setup > Network**
   To be able to see each other, the Merging Technologies Network card and Horus must be in the same range of addresses. (for example **192.168.xxx.xx**).
2. The Horus IP address can be checked (and changed if required in the **Horus Setup page> Network**)
3. The IP address of the MT Network card can be changed in **Windows Control Panel > Change Adapter Settings**
4. Right click on the Merging Technologies NIC and select **Properties**.
5. Select **Internet Protocol Version 4**, **TPC/IPv4** (which is the only one activated) and click on **Properties**.
6. Switch to **Use the following IP address** and enter an IP address that is in the same range as the Horus IP address. The Subnet Mask should be added automatically.
7. Click on **OK** in each dialog to accept the changes and close the dialogs.

Windows Firewall and UAC

Recommendation

If not configured correctly, Windows Firewall can block communication between MassCore and Horus. User Account Control should also be set to **Never Notify**.

Firewall

- Open the Windows **Control Panel**. Open the **System and Security** section and under **Windows Firewall** disable the Firewall for the Public Network.
- Go back to the Windows **Control Panel** and click on Windows **Firewall**. Click on **Change notification settings**. Ensure **Block all incoming connections, including those in the list of allowed programs** is **NOT** ticked.

User Account Control

- Open the Windows **Control Panel**. Open the **User Accounts** section and under **Change User Account Control Settings** move the slider down to **Never Notify**.

Antivirus

Recommendation

Merging also recommends that any Antivirus software be disabled. Some Antivirus software such as *Avast* have been known to block the Horus discovery and Ravenna I/O connections.

11 First launch

Important! After installation has been completed, please reboot the PC before attempting to launch Pyramix Virtual Studio. Then open the **VS3 control panel** application.

Start > All Programs > Merging Technologies > VS3 Runtime > VS3 control panel

For Systems with MassCore

Follow the instructions above, depending on whether you have one or multiple boards fitted with this exception:

- First - choose **MassCore** from the **Platform** drop-down list.

For Systems with MassCore and Ravenna

Please see: **Configure Ravenna in the VS3 Control Panel on page 26**

For Pyramix systems with a single Mykerinos board:

- Leave all default selections as they are, making sure the **On Bus** checkbox for your Mykerinos card is indeed checked.
- For now, leave all other settings as they are.
- Click on the **OK** button.
- When the VS3 panel **Do you want to save routing?** dialog box appears, click on **OK**
- the VS3 control panel will close

For Pyramix systems with a multiboard configuration:

- Make sure there is a check mark in the **On Bus** boxes for each board installed.
- Check that the **Application** combo box is showing **Pyramix Virtual Studio**. If not, select it from the list.
- Select which board is to provide an external **Video/TC** reference with the radio buttons next to the board icons.
- For now, leave the default **DSP Allocation** and all other settings as they are.
- Click on the **OK** button.
- When the VS3 panel **Do you want to save routing?** dialog box appears, click on **OK**
- the VS3 control panel will close.

Launch Pyramix

Double-click on the **Pyramix Virtual Studio** desktop icon to launch Pyramix. The **User Manual** and **Quick Start Guide** are available from within Pyramix and may be accessed via the **Help** menu or by pressing **F1**, or online at merging.com

Note: For further information about options available in the VS3 Control Panel, please see the Pyramix User Manual.

12 Troubleshooting

Please visit regularly:

www.merging.com

for the latest Troubleshooting Guide and FAQ sections.

13 Lost or Stolen Merging Technologies Security Keys

(Sentinel / HASP USB Dongles)

The Merging USB Key carries all the value of your Merging software and the software licence authorization to use it. Please ensure you do not lose the USB key as Merging Technologies cannot be held responsible if this is lost or stolen.

If your USB key is lost or stolen then please make a claim on your insurance in the usual way just as you would for any other item you own. Merging will be happy to confirm the details and value of the software licence and USB key to your insurance company. If your USB key is lost or stolen and a different user should attempt to register for this key, Merging will notify you and the authorities in your country that an attempt has been made to register this stolen item.

If your USB key should become defective or is broken, please ensure this key is returned to Merging after requesting and RMA (Return Merchandise Authorization.) Only after the receipt of this key in the Merging Offices will it be determined if it may be exchanged under warranty free-of-charge, or if the damage is outside the warranty scope. in which case only a modest fee to replace it with a new key will be charged (and not the entire value of the software.)

14 Contacting Merging

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For all documentation inquiries or suggestions for improvement:
http://www.merging.com

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